Advisory Committee on Land Record Modernization Standards
Meeting Notes 6-09-2004
by Erik Hubl

Attendance: Larry Zink, Erik Hubl, Jim Koch, Jim Langtry, Gail Knapp, John Beran

The meeting started at 1:40. Larry opened discussions on the topic of ESRI's Geodatabase. He asked us if we felt that we wanted to craft standards that would be based on the geodatabase concept. Since this is new emerging technology that is very complex, there is concern that fledgling GIS projects may be overwhelmed by the method. Everyone present felt it may be best to keep the standards simplified by establishing a minimum set of criteria.

We discussed the various GIS software packages being used by folks in Nebraska. Gail pointed out that OPPD and NPPD both use Microstation. John informed us that Fremont uses GIS enabled AutoCAD and that a Chamber of Commerce in northeast Nebraska uses MapInfo.

John asked if there are other states that have developed Land Records standards. Jim L. reported on Montana's progress and their spatial data organization. Larry pointed out that much of that area is BLM land and as such the Federal Government has been able to move ahead with development of unified rules and standards.

Larry then asked us to review the "guidelines" booklet, in particular the stated scales as written on page V-5.

The minimum scale for rural areas is defined as 1:12,000. The DOQQ's are designed for this scale. SSURGO data was adjusted to the DOQQ's but is listed at a 1:24,000 scale. Larry asked us if a potential spatial displacement of up to 33 foot would be acceptable for mapping rural areas of Nebraska. Jim L. said that would be about 1/2 the width of a gravel road right of way.

Larry asked us if there were needs other than assessments that might drive higher accuracy requirements than 33'. No one could really think of any at that point. The discussion then led to the two main methods for creation of a parcel layer: Digitize lines from various paper sources or utilizing coordinate geometry tools to input parcels from recorded deeds and surveys. In terms of funding, would it make more sense to insist on a higher level of accuracy (COGO) or would it be best to craft minimum standards that would allow the creation of parcel shapes from digitized sources (old paper maps, heads up digitizing off aerials or plats). Note, this would not preclude someone from doing a more spatially accurate project, rather it would just establish the minimum that must be done.

Larry spoke about the "practical reality" of having rural counties complete projects. He used the term "best available data" as source information for parcel development. We are all aware of the various levels of best available data throughout Nebraska. John spoke a bit about Dodge County and their use of GMM and its complexities. He felt this approach may not be suitable for some rural counties.

Discussion then led into monumented survey control. NDOR has a lot of section corners that have been recovered and surveyed as part of various road projects. It was felt that these were probably pretty accurate especially locally (project specific). Combining various projects together may not be possible. However this data and the state-wide HARN data together could provide some important control from which to build county level parcel datasets.

Larry speculated that adjoining county lines may need more control and a measurement based system versus a digitized system.

Bringing us back to the scale topic Larry asked us what people might expect during the first years. People will want to see results. Using the best available base data – which would be the DOQQ's. The emerging consensus of the group was:

Area of coverage	Map Scale	Horizontal accuracy	Likely data source

Rural areas	1:12,000	33' spatial accuracy	DOQQ based
Suburban	1:2,400	6.7' spatial accuracy	Engineering drawings/plats
Urban	1:1,200 >	3.3' spatial accuracy	GPS control/COGO

But in crafting these standards, we will be identifying the minimum type of work that will be required. It is not reasonable to force an existing GIS project into a higher accuracy requirement based solely on their size classification. It was felt that existing GIS projects in Nebraska certainly meet the 1:12,000 scale requirements. It was also felt that spatial accuracy requirements are driven by local needs.

Larry said an important point is "don't talk about the methodology, talk about spatial accuracy".

Next we began to discuss what determines rural, suburban or urban. First class cities are those with population of 10,000. Does that mean urban? Perhaps someone could obtain a city size classification list for us. Lash Chaffin at the League of Municipalities could probably help.

A brief discussion covered the 'map projection' of the data. Stateplane NAD83 was the hands down choice especially due to the fact that it is already included in state statutes. One point to note is that those statutes specify units in meters and I believe everyone still likes to use the English system. Jim L pointed out that map projections are really becoming a transparent issue with projection 'on the fly' capabilities of today's GIS software.

We began to discuss a level of GPS survey control that might be needed to help facilitate county GIS development. Larry asked us if precise locations of township corners were needed? Were county corners needed? We all felt that county corners were pretty important. Obtaining those may be more difficult than we think. We discussed correction lines (standard parallels) and the extra monuments needed to define those "jogs". Erik suggested that an identification of the growth counties like the Platte corridor and various eastern counties may lead to more detailed GPS survey control at the township level (approximately every 6 miles). Larry felt that the "rate of growth" of a county could help determine if a county should have township level control.

This control would have to be complete before a county could begin their GIS development. Who would do that work? Erik said he would like to see the State Surveyor's office lead this venture. John pointed out that the SSO has had to eliminate all of its own survey parties and instead contracts out. Someone asked what is required in re-establishing a lost or obliterated corner. Does that monument then become a secondary level of accuracy like level 2 or something? John will find out. In our first meeting Duane told us it would cost approximately $500 per point to recover and GPS a PLSS monument.

So Larry said the minimum standards would be for county boundary corners to be surveyed and that would help define the 93 county boundaries. Some jargon will need to be established to identify when township level control may be warranted. Additionally, these projects would have to coordinate with counties that already have established control at county corners.

At the last meeting Jim K was asked to gather information on the assessment abstract that each county submits to DPAT. The abstract is a conglomeration of all the property values in a given county. Valuations are listed in total and are also broken up by residential, commercial, industrial and agricultural as well as by various taxing districts like schools, fire, NRD etc. DPAT also has assessment responsibilities for 9 counties and in that role they have more site specific information on a given parcel (i.e. improvements, size, quality, age etc.).

All counties submit the same format of data with the abstracts with the exception of Lancaster & Douglas. The two "big ones" submit tapes of data in a different format but Jim K. said the trade-off is they get a lot more information and it comes to them digitally. No re-keying is required.

Jim K will prepare some handouts for us on this information for the next meeting. We all agreed that our taskforce needs to walk closely in sync with DPAT in order to maximize the potential of this vision.

Next meeting: Wed, July 14th, 2004 1:00 PM NDOR, Materials and Tests Conference Room, SW corner, main floor of West Bldg. of NDOR 3-Bldg. Complex